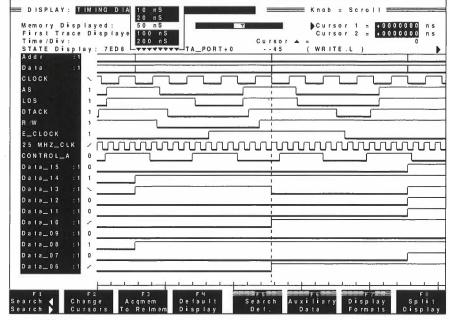
PRISM 3001/3002

System Software Version 2.0



- Pop-up User Interface
- 1-2-5 Timing Diagram Resolution
- BUSFORMS Display
- . Binary Readout in Timing
- State Readout in Timing
- Easy Method for Labeling Timing Channels
- Easier to read Timing Diagram Displays
- Multi-line State Disassembly Displays
- Improved Memory Differences Display
- Improved Save/Restore Capability
- Kermit RS-232 Protocol
- Improved State Table Printing Capability
- HLL Symbol Capability
- 1500 Symbols/group
- Range plus Offset display
- Compatible with LA-LINK



Pop-up fields are a major enhancement to the Prism system software version 2.0. This lets you easily select the option you want for any select field. Shown is the new timing display window which now includes 1-2-5 resolution, binary readout and state readout at the cursor.

MAJOR SYSTEM SOFTWARE UPGRADE FOR ALL PRISM 3000 SYSTEMS

Prism System Software Version 2.0 is a major upgrade that will dramatically increase the productivity of your Prism 3001 or 3002 system. This upgrade is provided free of charge to all existing Prism owners. This upgrade consists of new system software, new application software, and a new User's manual.

Pop-Up User Interface

You can now quickly view all options in any select field from a pop-up menu. Simply move to the desired field, press return and all options will appear in a pop-up menu. Use the scroll knob to select the desired option.

This feature will speed up many Prism functions. It eliminates the need to step through each option, some of which may take time to display. For example, when changing timing resolution, rather than draw the screen for each resolution you pass by, you can jump directly to the resolution you want.



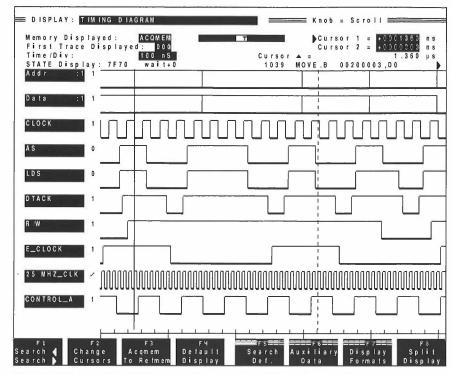
Improved Timing Diagrams

Several enhancements have been made to the timing diagrams to increase your productivity

- 1-2-5 timing resolution to display the data in the resolution you want to see it in.
- You can now display a composite trace, called a BUSFORM, consisting of all traces within a given channel group. If selected, the value of the BUS is displayed at the top of the screen in the STATE display line. BUSFORMs are a convenient way to view activity of many lines such as address or data lines.
- Timing traces displays logic lows in a double pixel line to easily differentiate ones from zeros.
- Easy method for adding custom labels to individual timing lines to identify what line is being displayed.
- A binary readout field has been added to indicate the value of the timing diagram at the cursor. Five symbols indicate logic 1, logic 0, transition to high, transition to low, and middle state for the 30HSM's dual threshold mode. This field can be turned off if desired.
- A state readout field has been added to indicate the module state display at the cursor.
 If disassembly has been selected the disassembled instruction will be displayed. This field can also be turned off.

Improved Memory Compare

When comparing acquisition memory to a reference memory, comparisons are made on a location-to-location basis, relative to the module trigger. An arrow displayed in the left column of the State Display indicates a difference and the exact difference is highlighted. In the timing diagram the cursor is placed at the nearest differing location during a search for differences.



BUSFORMS are now available. This shows the address and data group each displayed as single traces. Other improvements in the timing diagram include displaying logic lows as a double pixel line. Also custom labels can be easily added to each individual timing trace.



When comparing your current acquisition memory with a stored reference memory, memory differences are easily identified. An arrow points to the line with the difference and the actual difference is highlighted.

Improved State Display

Several enhancements have been made to the state display to increase your productivity.

- For microprocessors that have multiple instructions per data fetch (e.g. 80386 w/8-bit opcode can fetch up to 4 instructions in a single fetch), the Prism now displays each instruction on it's own line rather than horizontally on one line.
- High level language symbol capability has been added to the disassembly display (see more on symbols below). Range symbols are displayed with an offset in the address group.

HLL Symbol Capability Added

Your Prism system is now compatible with Tek's LA-CONNECT program which makes your logic analyzer compatible with many industry leading compilers and debuggers. LA-LINK is a software program that will extract symbolic information from an object module and convert it into a format that can be downloaded to the Prism.

There are two types of symbols available, Range Symbols and Pattern Symbols.

- Range symbols contain a starting and ending address and are generally assigned to an address group. You can download up to 1500 symbols per group (limited by available Prism system memory). In the state display, range symbols are shown as address plus an offset.
- Pattern symbols contain one value and are generally assigned to a control or data group. Up to 100 pattern symbols can be assigned to a group.

D 1001A	V. CTITE TIBLE	
DISPLAY: STATE TABLE		
	Displayed: REFMEM T Cursor 1 roup Displayed: Cntll rmat: Hardware Cursor 4 =	
Data Fo	THIRD I .	40.300 μ5
	MPX1 MPX1 MPX1 MPX1	
Loc	Cntl1 Cntl2 Addr Data	Time
	PUSH #03	
2 8	8009 OE 00220B28 6ADFD6E9 JMPS 0022EB01	+ 7.940 µs
2 9	8009 0E 00220B2C DA0AE904 (FLUSH)	+ 8.040 µs
3 0	8019 OE 00220B30 05E9056A (FLUSH)	+ 8.140 μs
3 1	EC09 0E 0021A80C0003 (MEM WRITE)	+ 8.340 μs
3 2	8009 OE 0021EB00 065566FA PUSH EBP;	+ 8.440 μs
	PUSH ES	
3 3—	-8009-0E-0021EB04-661E1E06-PUSH-ES;	
1	PUSH DS;	?
	PUSH DS; PUSH EAX	
3 4	8009 OE 0021EB08 66536650 PUSH EBX:	+ 8.640 us
""	PUSH ECX	τ 0.040 μ5
3.5	8019 OE 0021EB0C 66526651 PUSH EDX;	+ 8.740 μs
	PUSH ES I	0.710 #0
3 6	E009 0E 0021A808 00000000 (MEM WRITE)	+ 8.940 μs
3 7	E309 0E 0021A806 0000 (MEM WRITE)	+ 9.100 μs
3 8	EC09 0E 0021A8040000 (MEM WRITE)	+ 9.340 μs
3 9	E309 OE 0021A802 0000 (MEM WRITE)	+ 9.500 μs
4 0	EC09 0E 0021A8000000 (MEM WRITE)	+ 9.740 μs
4 1	E009 0E 0021A7FC 00000301 (MEM WRITE)	+ 9.900 μs
4 2	E009 DE 0021A7F8 000012C8 (MEM WRITE)	+ 10.040 µs
4 3	E009 0E 0021A7F4 00000101 (MEM WRITE)	+ 10.200 μs
4 4	E009 0E 0021A7F0 FFFF0181 (MEM WRITE)	+ 10.340 μs
4 5	8009 0E 0021EB10 66576656 PUSH EDI;	+ 10.540 μs
4 6	MOV EBP, ESP 8009 0E 0021EB14 08B8EC8B MOV AX, #0008	+ 10.640 µs
F 1	F2 F2 F4 F4 F5 F5 F6 F6	
Search 🔺		play Split
Search ▼		nats Display
000.011	out of the life of	3.3914)

This is an example of a 80386 disassembly with four instructions per sample.

== DISPLAY: STATE TABLE	Knob = Scroll
Memory Displayed: ACOMEM First Group Displayed: Addr Data Format: Hardware Curso	Cursor 1 = +000214 Cursor 2 = +000002 or A = 116.240 µs
M P X 1 Loc Addr	MPX1 Data
201	10DE (READ) 4A80 TST.L D0 6A08 BPL 0010EA
204 \$processor_sup\$code+1b8 205 \$processor_sup\$code+1ba 206 C3FBE8	4A97 TST.L (A7) 6BF4 BMI 0010DA FFFF (READ)
207 C3FBEA 208 Sprocessor_sup\$code+1bc 209 Sprocessor_sup\$code+1b0	FFFF (READ) 5397 (FLUSH) 6100 BSR.W 001374
210 Sprocessor_sup\$code+1b2 211 Micro_processor_handler_routine+c 212 Micro_processor_handler_routine+e	0298 (READ EXTENSION) 514F SUBQ.W #8,A7 2F0B MOVE.L A3,-{A7}
213 C3FBE4	0000 (WRITE)
216 Micro_processor_handler_routine+12 217 C3FBDA 218 C3FBD8	0080 (READ EXTENSION) FEOC (WRITE) 00C3 (WRITE)
219 Micro_processor_handler_routine+14 220 Micro_processor_handler_routine+16 221 Micro_processor_handler_routine+18	0001 (READ EXTENSION) 1039 MOVE.B 00200003,D0 0020 (READ EXTENSION)
- 222 Micro_processor_handler_routine+1a 223 Micro_processor_handler_routine+1c 224 200002	0003 (READ EXTENSION) 7201 MOVEQ #000001,D1 0C (READ L)
225 Micro_processor_handler_routine+1e 226 Micro_processor_handler_routine+20 227 Micro_processor_handler_routine+22	C 0 0 1 A N D . B D 1 , D 0 5 3 0 0 S U B Q . B # 1 , D 0 6 6 0 E B N E 0 0 1 3 9 A
F1 F2 F3 ■■■■F4■■■F5■■■F5■■■F5■■■F5■■■F5■■F5■■F5■	F8 Auxiliary Display Split Data Formats Display

High level language symbols are now supported through Tek's LA-LINK symbol converter. This is an example of high level symbols displayed in a disassembly trace. Notice that these symbols are displayed on each line with an offset where appropriate.



The Print All function displays a submenu which allows you to specify what you want to print and also the file name to print to. This eliminates the need to jump to alternate menus to set-up your print function.

Improved Download Capability

The industry standard Kermit RS-232 protocol has been added to Prism to enable you to reliably download/upload set-ups, reference memories, or symbol files from any host computer up to 38.4K baud. A status indicator will display your progress when uploading data to a host computer.

Improved Save/Restore Capability

The save/restore function has been improved to now save all user set-ups including trace names, display set-ups, and group setups. You can now save the state of your system at the end of the day and restore it to the same set-up the next morning.

Improved Print Operations

A new print feature called Print All provides the capability to print the state display in ASCII to a printer or to a file. A print file can be copied to the Prism's MS-DOS 3 1/2" floppy and moved to a PC for printing. You can print the entire state table, between cursors, or between sequence numbers.

Improved Trigger Locating

Any module in the Prism system can produce a trigger. You can now easily jump between triggers by pressing X or T for the system trigger and C or M for module triggers. Prism displays a message identifying which trigger is shown.

Ordering Information

Prism system software version 2.0 and all of the new versions of application software are provided free to all Prism 3001 and 3002 users! All registered users will automatically receive the new software upgrade and new user's manuals at no charge. Un-registered users can contact their local Tektronix sales engineer for a free upgrade.

For further information, contact:

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